

DaimlerChrysler AG

Patent Claims

- 5 1. A control device (1) for a motor vehicle for preventively actuating a means (2) for protecting vehicle occupants and/or road users, comprising a
- decision stage (3) which issues a triggering
  - 10 decision for the means (2) for protecting vehicle occupants if a travel behavior of the vehicle which is critical for safety is determined using dynamic translational movement parameters, and
  - a plausibility checking stage (4) for checking the plausibility of the triggering decision,
  - 15 characterized in that the plausibility checking stage (4) evaluates the triggering decision as implausible and prevents the means for protecting vehicle occupants and/or road users from being actuated if an evaluation of the time profile of parameters (7, 10, 11) which are
  - 20 sensed in the vehicle reveals that the travel behavior which is critical for safety corresponds, within predefinable limits, to a desired travel behavior in the sense of a travel behavior which is brought about in a deliberate and controlled fashion.
  - 25
2. The control device as claimed in claim 1, characterized in that the plausibility checking stage (4) uses a parameter which is indicative of the speed of the change in the travel behavior of the vehicle to
- 30 check the plausibility of the triggering decision.
3. The control device as claimed in claim 2, characterized in that the plausibility checking stage (4) evaluates the triggering decision as implausible
- 35 and prevents the means (2) for protecting vehicle occupants from being actuated if the travel behavior of the vehicle has only made a slow approach to the travel behavior which is critical for safety.

4. The control device as claimed in claim 3, characterized in that the plausibility checking stage (4) evaluates the triggering decision as implausible and prevents the actuation of the means (2) for protecting vehicle occupants if a change in the travel behavior of the vehicle within a predefinable time period has taken place only with a speed of change which is below a predefinable threshold value.
5. The control device as claimed in one of claims 1 to 4, characterized in that the plausibility checking stage (4) evaluates the triggering decision as implausible and prevents the means (2) for protecting vehicle occupants from being actuated if a predefinable number of repetitions of the same travel behavior which is critical for safety took place within a predefinable time period.
6. The control device as claimed in one of claims 1 to 5, characterized in that the plausibility checking stage (4) evaluates the triggering decision as implausible and prevents the actuation of the means (2) for protecting vehicle occupants only if the travel behavior which is critical for safety corresponds to a predefinable exceptional travel situation.
7. The control device as claimed in one of the preceding claims, characterized in that the means (2) for protecting vehicle occupants, in particular a seatbelt pretensioner, can be triggered in a reversible fashion.
8. A method for preventively actuating a means (2) for protecting vehicle occupants in a motor vehicle, in particular having a control device as claimed in one of the preceding claims, wherein a triggering decision for the means (2) for protecting vehicle occupants is issued only if a travel behavior of the vehicle which is critical for safety is determined using dynamic

translational movement parameters, characterized in that the triggering decision is evaluated as implausible and the actuation of the means (2) for protecting vehicle occupants is prevented if it is  
5 concluded, by means of an evaluation of the time profile of parameters which are sensed in the vehicle, that the critical travel behavior corresponds, within predefinable limits, to a desired travel behavior in the sense of a travel behavior which is brought about  
10 by the driver in a deliberate and controlled fashion.